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Hon. Geo. B. Loring, United States Commissioner of Agriculture.

We give above a portrait of the Commissioner of Agriculture, Dr. George B. Loring, of Mass. For the use of this excellent picture of the doctor, we are indebted to that lately established and well conducted weekly, "*The National Farmer*," Washington City, D. C. We have long known Dr. Loring by reputation, and for some

years have had the pleasure of a personal acquaintance. The biographical sketch which we give is mainly taken from the columns of our above named esteemed contemporary journal. We endorse all that is said of him and feel sure he will become as popular in the South as he is in the North. His genial manners and warm eloquence is well suited to the habits and feelings of Southern farmers, and his zeal in all that concerns agriculture will endear him to the farmers of the whole country.

George Bailey Loring was born at North Andover, Mass., graduated at Harvard College in 1838, and at Harvard Medical College in 1842. In 1848, he became Surgeon of the Marine Hospital at Chelsea, where he remained until 1850. In 1853 the doctor was made postmaster of Salem, Mass. During nearly all this time he was ceaselessly active in writing, making addresses, and studying practical and scientific agriculture. It was at this period that he distinguished himself as a ready debater, a cogent reasoner, and a graceful speaker.

Soon after the doctor became widely known to the prominent agriculturists, scientists, statesmen and literary men of that day, a fatal cattle disease broke out in Massachusetts and the neighboring States, causing great loss and producing widespread consternation. His professional and agricultural studies and his ability and energy pointed him out as the fittest commissioner to extirpate that fearful scourge—pleuro-pneumonia. He was commissioned in 1860, and most nobly did he perform the onerous and difficult task of stamping out that contagious malady among cattle. The plans he successfully pursued then, can now be profitably and successfully followed by a United States commission for ridding the country of a contagious scourge that may cost us hundreds of millions of dollars worth of cattle.

About this time Dr. Loring was extensively engaged in farming, and though his boyhood and youth were not agriculturally neglected, again he devoted his time and talents to the practical work of the farm. The chief products of it were milk, vegetables and hay. In 1859 Dr. Loring imported some of the finest Ayrshire stock that could be found in Great Britain, and he has continued to breed them most successfully ever since.

He founded the New England Agricultural Society in 1864, became and is its President. This society is still in a most flourishing condition. He was a trustee of the Massachusetts Society for promoting agriculture, from 1858 to 1863. He has published his numerous addresses, papers, lectures, and articles on literary, agricultural and scientific subjects, which largely contributed to the literature of the times. As a lecturer Dr. Loring is dignified, graceful, effective, pleasing and entertaining: as a writer, earnest, clear and instructive, and as an orator, distinctively forcible, eloquent and convincing.

In 1870 his address at the opening of the scientific course of the American Institute in New York was widely copied. He is not only a member of the American Institute, but for many years he has been a member of the farmers' club of that institute, which is the oldest farmers' club in the United States. The Doctor is also a member of the American Agricultural Association, and contributed a valuable paper on "The Problem of American Land Holding."

Dr. Loring was in the Massachusetts House of Representatives in 1866 and 1867, and afterwards was President of the Massachusetts Senate up to 1873. It was here that the doctor's eloquence was most brilliantly displayed in a speech in behalf of his old friend, Prof. Agassiz, on scientific education. His eloquence is fervid, fluent, forcible and glowing; his voice is strong and musical, his countenance is expressive, and his physique, perfect, large, manly and graceful; his gestures simple and impressive, and his broad, high forehead and handsome face make him universally admired by the audience; and his pleasing style and manner make an hour seem as but a few minutes. As a member of the Forty-fifth and Forty-sixth Congresses, no one's views on the great problem of agriculture were more earnestly sought than were Dr. Loring's. In fact, but few men at any time during the existence of our republic have done more for agriculture.

For nearly twenty years Dr. Loring was a member of the State Board of Agriculture, associated with such men as Agassiz,

C. A. Flint, and others, in agricultural and scientific labors. His acquaintance with the prominent men of the day is remarkably extensive.

Dr. Loring's contributions to agriculture and literature were large and valuable; his experiments were accurate and useful, and as a practical farmer and breeder, his good judgment, extensive knowledge, and good common sense have proved that farming can be made to pay. But what renders Dr. Loring's services to the department and to the country most valuable is, his broad and liberal views and his perfect freedom from hobbies. These he neither imports, breeds, raises nor rides. The whole field of national agriculture, under his superintendence, will be practically and faithfully cultivated.

Success in Farming—Importance of Rotation, and Clover and Grass Crops.

BY HON. WM. FULLERTON.

The necessary steps towards improved husbandry are:—

1. To cultivate less land.
2. To make that which is cultivated rich in plant food, so that it may produce large crops.
3. The practice of a rigid system of rotation of crops and mixed farming.
4. The cultivation of the grasses and less of the cereals, and the feeding upon the farm the most of its products.
5. Raising clover and enriching the land by turning under green crops.

I believe that the faithful practice of such a system of tilling would, in ten years, increase the value of real estate 100 per cent. and place the farming population in an independent position. All observation and experience go to show that those sections of the country are more prosperous where a mixed system of farming prevails. The farmer who finds in his own garners, that which is needed to supply his daily wants, is far removed from the vexation and losses attendant upon outside purchases, which so severely tax his means. It is not infrequently the case when he produces but a single article for the market, that it commands a price which but poorly compensates him for his labor, while he has to pay exorbitant prices for that which he is compelled to purchase. This is "selling the hide for a penny and buying back the tail for a shilling," which surely is not a profitable transaction. Mixed agriculture necessarily leads to system of rotation of crops, which is the key to successful farming. That there is a vast recuperative power in the land where a succession of different crops are grown, no one can deny in the light of universal experience. Thousands of those who have hitherto devoted themselves to a single production, such as cotton, tobacco or grain, now acknowledge this error.

Successive crops of the same character exhaust lands of the particular food they require with great rapidity. The aid which nature so freely renders, where crops rotate, is withheld in such a system of cultivation, because the farmer is violating her laws. To fight against nature is to war at fearful odds, and it is not difficult to forecast the result. To work in harmony with her insures a comparatively easy victory. One of the most beautiful of her provisions is, that while one crop exhausts the soil of that element which enters most largely into its composition by the operation of some mysterious law, it prepares that same soil for some other crop of a different character. This is a very curious and interesting process of nature, which results immensely to our advantage if we accept her aid. As an illustration of this principle, we know that clover does not successfully follow itself, although it leaves the ground in the best possible condition for corn or wheat. One crop, therefore, restores in a measure what another has taken. By raising continuously the same plant you interfere with this beautiful contrivance of nature to rebuild her wasted strength. How this is done is imperfectly understood. We do know, however, that the deep-rooted plants like clover will pump from the depths below for the use of those that grow near the surface that food which has been carried beyond their reach. And not only that this element, when brought to the surface, acts chemically upon what it finds there, and renders soluble and available as plant food what before was inert and resisted assimilation.

Nature, therefore, will do much of our work for us if we only second her efforts and give full scope to her beneficial laws. It is, therefore, a question for the farmer to determine whether he will, by a rotation

of crops, have this soil enriched by drafts on nature's treasury or draw entirely upon his own. I do not mean to argue that there is nothing for the farmer to do but follow this rotation to make his lands productive. Far from it. But I do argue that he may make nature a co-worker with him in attaining a desirable end. Change is a prominent feature in nature's economy. Cut down the forest of hard wood and the pines succeed. Again, remove the pine and the wood re-appears. One kind of grass succeeds another, and nature supplies the seed. These changes give the soil rest, to the end that the process of re-invigoration may go on.—*Nashville (Tenn) Southern Industries.*

ENSILAGE.

BY H. L. WHITNEY.

Early in June of 1881, I settled in my own mind a problem I had been revolving for many months, but with no satisfactory solution. The testimony of intelligent agriculturists and eminently scientific agronomists in France and Germany, convinced that many years of practical demonstrations, giving incontrovertible proof of a marked superiority of ensilage prepared food over any other method, could be made equally available this side of the Atlantic.

M. Adolph Reihlen, of Stuttgart, Germany, in 1860, ensilaged a large crop of corn with astonishing success, and the process has been repeated yearly with increasing satisfaction. As early as 1873, the method was adopted in France on a considerable scale. Its popularity has steadily increased.

There has been a great diversity of opinion as to the comparative yield and value of ensilage. In France, the yield per acre is estimated at about thirty tons. M. Moreul, of Mayenne, easily obtained 35.68 tons; M. de Kerjeur, 66.91 tons; M. Goffart, 53.55 tons. The corn was sown in drills, about three and one half pecks per acre. The soil was heavily dressed; mineral fertilizers comprising superphosphate of lime, sulphate of ammonia, nitrate of soda, combined with specific preparations were much in favor. Two crops are easily produced in a season. Rye is a valuable crop; as is also wheat. M. Pasquay deduced from results obtained by German agricultural stations the actual value of different fodder plants. Corn, green, 22 per cent. of that of hay; rye, 38 per cent.; grass, 34 per cent.; wheat, 48 per cent. In France and Germany the labor is largely manual. Machinery is little used. The spade, hoe and muscle give to agriculture an Eden like spontanity. The soil is thoroughly utilized. A seeming prodigality is displayed in replacing what has been taken from the soil by the immense crops. My own observations in both garden and market convinced me that French agriculturists had arrived at the zenith of perfection in the art of growing crops of all kinds. Labor is so cheap that a sufficient force to thoroughly manipulate every inch of soil is possible, without exhausting more than the value of the crops.

The controversy growing out of a difference of opinion of some who know, or assume to know the ins and outs of ensilage is waxing bitter and heated. A large majority of those who have built silos and used ensilage to any considerable extent in this country, fully corroborate the testimony so candidly given by both French and German writers on the subject. My experience has been very satisfactory as far as the results of using ensilage prepared food are concerned. My silo was constructed in part upon plans adopted by Messrs. Bailey, Ware, Brooks and Copeland. I was advised by Col. Mattox, of Portland, to construct it wholly of wood, which, in his opinion, was equally satisfactory and a considerable saving in expense. I dug a trench forty-three feet in length, fifteen feet wide, and four feet deep. This was substantially walled up and cemented; also a coat of three inches of cement for a flooring. Upon this wall a frame made of 8 inch timber, 16 feet in length, covered on the inside with two inch plank, tar paper, and shingled. I commenced filling the silo the 21st of September, and on the following day had about forty tons of corn and clover rowen (mostly corn) under pressure. It was weighted with stone. Late in November, a portion of the planks were removed, and it was very gratifying to find the mass in a perfect state of preservation. It was odorless, emitting none of the pomace flavor I had noticed where a much longer time had been occupied in filling than in my own case. The cattle, sheep and horses were given a small allowance,

and all ate it with a ravenous appetite. The sheep in particular made a stampede and well nigh run down the feeder in their haste to get an extra allowance. After feeding daily until the whole had been expended, noting carefully the condition of the stock as compared with former years, I can truly say that for one, give me ensilage; and could the stock be given the power bestowed on Balaam's ass, they would lustily cry out for the succulent delicious food. The sheep thrived as if in pasture and brought very fine lambs, much superior to those in the immediate vicinity that were fed on dried food.—*Massachusetts Ploughman.*

A New Method of Growing Corn.

Mr. J. S. Winter, of Montgomery, Ala., has been making experiments in growing corn. From a letter explaining his views and their results we extract the following, which will explain his method. His first experiment was in planting in rows 14 feet apart and 1 foot apart in the drill, or at the rate of 3,640 stalks to the acre, to correspond with the number common to the acre when sown in the usual 3 feet by 4 feet way. The returns from this trial induced a further experiment. Twenty acres were put down in rows 12 feet wide and 1 foot apart in the drill, and notwithstanding the prevailing and unusually disastrous drouth of last season the crop realized was double the best grown on the land for years, and twice that grown on the infinitely richer adjoining bottom lands cultivated with equal care, but planted in the ordinary mode and ordinarily producing double the crop usual to the land devoted to the experiment; the increased return being greatly due to the increased exposure of the plants to the influences of light and air, as also in a measure to the greater moisture-retaining capacity of the wider and amply cultivated spaces incident to the change.

After making several efforts in the demonstration of the greatly superior advantages of the wider row system of corn culture Mr. Winter regards with most favor the plan of planting two rows 4 feet apart, with the distance in the drill say from 9 inches to 2 feet, determined and regulated by the quality of the land; then skipping 16 feet—two other 4-feet rows, followed as before, and so throughout, the yet wider beds being necessary, as he conceives, to the freer and less-hindered use of the intervening spaces for the adjunctive crops which he has in view as part of the system, such as field peas, millet, fodder corn, &c., to be put in after the corn crop has received its final cultivation.

Mr. Winter remarks that "the distance in the drill thought best on the particular lands devoted to these experiments is 1 foot, so that the number of stalks to the acre will, in theory at least, be 4,853, or just a third more than the 3,640 due to the current 3 by 4 method; while the latest experiment warrants expectation, under average conditions, of one-half more weight of corn to the stalk."

Mr. Winter thus further sums up the advantages of this system: "And thus 20 acres of the 100, say, ordinarily surrendered to the corn crop, it seems possible indeed to gather—and especially in seasons of protracted drought, for the wider beds secure absolute immunity from its usual prejudice—double the corn to be otherwise produced on the entire 100 acres, and of vastly better quality; while the field pea sown as early as the 1st of May may be alternated with German millet, fodder corn, and other quickly maturing crops, to be put down in this latitude as late even as the middle of July and gathered by the 1st of September, and these in turn by the native crab grass, which will be all the better for the later start.

"And the promise is, accordingly, of adjunctive crops rivalling in value and in their uses, to the practical farmer particularly, the main or corn crop; while, again, the cost of growing and gathering each and every of the entire of these products is infinitely reduced, if aided in the work by the improved power implements now-a-days at every good and thrifty farmer's command."—*Saunders in Tribune.*

[The above is well worth the attention of our farmers, and as the idea seems plausible, we suggest that others should try the plan next year. We like the plan of sowing the wide spaces in field peas, millet, &c., by which two or more good hay or ensilage crops could be grown on the same land in one year without lessening the amount of corn product. It is novel, but nevertheless not unworthy of a trial—EDS.]

For the Maryland Farmer.

Is it an Example.

There is a tendency among a certain class of agricultural writers to extoll the particular performance of some exceptionable farmer who has by some wondrous "streak of luck" been enabled to far surpass all his neighbors, and whose estimated farm wealth would buy out the entire neighborhood which adjoins him. Particularly so is this in respect to quite a number of great manufacturers, bankers and Government contractors who have as an amusement put in operation, farms, the capital stock of which never came from the soil and dug out with two hands, but was the result of lucky speculation or investment, and from which accumulation, farms have been bought, improvements instituted to the point of actual absurdity, and cattle bought at fabulous figures with which to stock with. Superintendents, overseers, chemists and small armies of farm hands are employed, the whole thing being conducted as an amusement, rather than a *bona fide* way of making a farm self-supporting and yet leave a profit for the owner.

Is it an example that should be set up to attract the notice of the hard working farmers whose income may be estimated at the few hundreds, and when, if for any reason failure comes for a year, they do not have a huge bank deposit from which to draw and make good the deficiency, but a debt is contracted instead, that has to be met when good times does come—interest and principal.

We say all hail to the man who aims to make farming attractive and sets an example that his neighbors can pattern after, and causes every tiller of the soil to have higher aspirations and more extended ambition. A testimonial to the farmer, say we, who can best show the comfort, beauty and enjoyment there is in well conducted farm life, and exhibits how, with the property and means at hand, a farmer's life may be prospered and lightened of its drudgery, while increasing its gains, and shows at last actual success.

Where is the average farmer to obtain his $100,000 at the start to commence with, so that this example may be fully complied with? What farmer, though well along in years, could, out of his whole accumulations, approach even within the "dim distance" of the example. The example is an impossible one to the great mass, and such examples as we are pointed to will always be to the agricultural population a museum of glittering impossibilities.

The new departure in agriculture does not require that a man should amass a fortune at some speculative enterprise before he embarks in farming. Legitimate farming can be carried on without palaces for houses, lavish expenditures for barns, and fortunes invested in imported stock. What the farming world needs is an example of farmers who have ascended the ladder of prosperity, and owed for the ladder when they commenced. The world just now needs men, who by manly achievement brings final success, a success that millions may attain, and be made comfortable and independent, rather than to attempt a showy magnificence that ended in failure, bringing with it that most fearful of all human blightings—*despair*. J. G.

Ohio.

Lives of Animals.—Camels live from 40 to 50 years; horses average 25 to 30; oxen, about 20; sheep, 8 or 9; and dogs, 12 to 14. Concerning the ages attained by non-domesticated animals only a few isolated facts are known. The Indians believe that the life-period of elephants is about 300 years, instances being recorded of these animals having lived 130 years in confinement after capture at an unknown age. Whales are estimated to reach the age of 400 years. Some reptiles are very long-lived, an instance being furnished by a tortoise which was confined in 1633 and existed until 1753, when it perished by an accident. Birds sometimes reach a great age, the eagle and the swan having been known to live 100. The longevity of fishes is often remarkable. The carp has been known to live 200 years; common river trout, 50 years; and the pike, 90 years, while Gesner—a Swiss naturalist—relates that a pike caught in 1497 bore a ring recording the capture of the same 267 years before. Insects are very short-lived, usually completing the term of their existence in a few weeks or months. Some even perish within a few hours after emerging from a grub state, and die upon the very day of entering upon their new life.

Hampshire, Franklin and Hampden Agcultural Society of Massachusetts.

This society is one of the oldest in the State, and has a membership of nearly one thousand members who are scattered over a large territory which embraces some of the best land in the State.

The official report of the State Board of Agriculture for 1881, gives an account of the fair held by this society in 1881, and gives some statements well worthy the consideration and imitation by members of agricultural associations further South. 25 yoke of oxen was one feature of the exhibition, and most of them would have done honor to any portion of the United States.

A portion of the money of this society is paid out to encourage farm crops, which in one direction, at least, has evidently outstripped other societies, namely, in the production of hay.

One competitor during the last year has grown 72 tons of hay on 12 acres; another, 48 tons on 10 acres, and one, 24 tons on 4 acres, the largest yield being 14 tons and 1458 pounds on two acres. This is astonishing! Who will try to beat this yield of hay per acre?

How the South is Fed.—It has been ascertained that the South has this season paid to the North $55,000,000 for wheat, $50,000,000 for corn, $72,000,000 for meats and about $25,000,000 for hay, butter cheese, oats, apples, potatoes, &c. The North, in other words, draws on us for about $200,000,000 a year to liquidate bills that should not have been made. This sum is far more than we can afford to pay for bread and meat, if we wholly depend upon cotton. This drain has impoverished us and from bitter experience we have at least learned to do better. The North will not next season be able to take from us over $100,000 on account of provisions and grain, and a year later the South should be fully self-sustaining. It must be done if there is to be any real independence in the South.—*Atlantic Constitution.*

Plant Food in an Acre of Clover.

Let us see what is the actual value of red clover as an accumulator of plant food, and compare its treasures with the demands of other crops, or especially with wheat, which has little power of accumulating plant food for itself. * *

Let us suppose that for every bushel of wheat we raise we have a hundred pounds of straw, and on this basis, from the average composition of wheat and its straw, let us estimate how large a crop of wheat and straw we may have furnished in each of the leading manurial elements contained in an acre of clover hay or clover sod.

In two and a half tons of clover hay or in an acre of clover sod of corresponding quantity, there will be both for grain and straw, enough phosphoric acid for a crop of 34 bushels, of combined nitrogen for 71 bushels, of potash for 102 bushels, of magnesia for 120 bushels, and of lime for 270 bushels. In other words, the clover hay or sod contains enough phosphoric acid for more than double an average crop, enough nitrogen for more than four average crops, and potash for more than six average crops of wheat! With such figures before you, do you wonder that farmers are surprised at the large crops they can raise on a clover sod? You see also why lands in rotation with clover can endure the heavy tax of two crops of wheat in succession without complete exhaustion. But when a body of clover is plowed in with sod, we reach results that round out that figure of Oriental magnificence, "The pastures are clothed with flocks, the valleys also are covered over with corn; they shout for joy, they also sing."—*Prof. W. J. Beal, in the Farmers' Friend.*

The Number of Farms in Maryland and other States.

A census table just made public gives the number of farms in each State and Territory from 1850 to 1880, inclusive. In 1850 there were in Maryland, 21,860 farms; in 1860, 25,494; in 1870, 27,000, and in 1880, 40,157. The increase from 1870 to 1880 was 50 per cent. In Virginia, there were in 1870, 23,849 farms, and in 1880, 118,517 an increase of 60 per cent. In West Virginia, there were in 1870, 39,778 farms, and in 1880, 62,674, an increase of 58 per cent. In the District of Columbia there

were in 1870, 209 farms, and in 1880, 435, an increase of 108 per cent. The greatest per cent. increase of any State or Territory is Dakota, 914 per cent., which had 1,720 farms in 1870, and 17,435 in 1880. Texas had 61,125 farms in 1870, and 174,184 in 1880, an increase of 185 per cent. The New England States, in this, as in all other cases, show the smallest rate of increase. Massachusetts only shows an increase of 45 per cent.; Connecticut an increase of 20 per cent.; Rhode Island of 16 per cent. and all the others under 10 per cent.

Farm Work for August.

The seasons of rain have been generally so propitious to the growth of crops that a large yield of the various cereals and of cotton and tobacco may be looked for with almost assured certainty.

Corn.

Give a dressing of two bushels of plaster to each acre of late corn before it is worked with the cultivator.

Tobacco.

Top Low.—Too many planters make the great mistake of suffering the crop, when growing fast, to run up too high before topping, under the idea that they will get more pounds This is not true. Fourteen leaves will give more pounds if the stalk had been topped before blossoming, than 20 leaves will if the plant is left to blossom out, When topped before the *button* is fully developed, (as it should be even if the plant has not over 8 or 10 leaves,) the top leaves will be as long and broad as any of the others, and be of as bright a color when cured. As we advised last month, we do now, in regard to worms, kill, kill, unceasingly, until they all be destroyed. It pays well in a good crop to hire hands for this work especially, in sufficient number to destroy these worms before they get large.

Rye.

Rye and clover may now be sown among the corn, at the last working of late corn, or after corn is past being injured by the working. August sown rye we have always found to do well, except in a few instances. If the clover takes well it gains a year in growth, and yields a fine pasture crop next year after the rye is taken off, at a season (this and next month,) when pastures are failing.

Timothy Meadows.

Any one who intends sowing timothy alone for pure hay ought to prepare now the ground selected, manure it well, use some fertilizer that is rich in phosphates, in the last harrowing, then, just before or after a rain, when the land is in a proper state sow two gallons of timothy seed per acre, brush it in and roll down nicely. Where early potatoes or corn had been grown, is a good place for this operation. The earlier that timothy is sown the better, for it will, if sown now, give a fair crop next year on well prepared, rich land, and yield more money per acre than a crop of wheat. Too little attention is paid to the growing of grasses adapted to the making of hay. Those convenient to market or near railroads can make no crop that pays better, all things considered. The reasons for this assertion, we think, are patent to every farmer who reflects and sums up the cost of production of the several farm crops. On all grass lands or such as are best adapted to grass, timothy outstrips all other crops in nett value.

Fall Potatoes.

If these have not been given the last working, do so at once, leaving a broad, flat hill about them. Keep the weeds down by hand and hoe weeding.

Fallow for all the Fall crops.

Turnips.

One or two pounds of seed is sufficient per acre on well prepared ground Sow any time before the 20th When the plants come up dust them often, until they get into the rough leaf, with a mixture of equal parts plaster or fine lime, ashes and salt, with a peck of soot; one bushel of the mixture per acre at each dressing. As soon as the plants begin to *bottle*, pass a harrow over to thin them and kill the weeds, then in a few days let careful hands, with hoes, weed and thin; in a week or ten days repeat the same, and if it be growing weather, the crop will require no more work. They should be thinned to six inches apart. Let us advise you to sow a few acres of your best corn land with turnips, to be fed off where they grow—cultivate the seed in; they will be fine for your fattening sheep this autumn, or ewes and lambs that come early. Mix the seed well with plentiful supply of plaster, cornmeal or sifted ashes, to enable the sower to properly distribute the seed over a large space of ground.

Granaries.

These should be thoroughly cleaned before wheat is put in them.

Young Clover.

Give the clover of this spring's sowing a dressing of plaster and salt, say a bushel of each to the acre.

Threshing Grain.

This month is a comparative leisure one for preparing your grain crops for market, and securing against all loss by having it ready to be shipped at any moment you feel the state of the market justifies your disposing of it.

Briars and Weeds.

This is the best time to eradicate briars and weeds and small bushes; go over the fields, glean all the bushes, briars, weeds and tussocks, dig up the turf in the fence corners, if briary or weedy; gather wood's earth, ditch banks, and if you have boggy places, get what you can out of the mud, and cart the whole into your barn yard, first put a layer of the fresh cut gleanings from the fields, one or two feet deep, then a covering of rich earth, leaves, muck. old straw, cornstalks, then more of the gleanings, and so on till the whole be brought in; all the while, cattle, horses and hogs will be trampling over it, and all the manure made in the mean time scattered over the yard, with occasional heavy dressings of plaster, ashes, salt, and any fertilizer that the farm affords, such as contents of kitchen sink, slop bucket and bones, and any and everything which can be conducive to the decomposition of these substances. If you had to haul too far this collection of weeds, &c., to your pig pens and barnyards, and you have gauls or knolls in your next year's pasture field,, haul it on them and spread thick; these places are the best spots to scatter all the straw and chaff you have left over winter's feeding.

Hogs.

If you have hogs running in your pastures now is the time, when the grass is low and heat oppressive, to feed generously, once or twice a day with corn, wheat and oat screenings; with bran, shorts, rotten or fallen apples, and other fruits, jointly or separately made by boiling into a mush or even a swill. It costs some thing and it causes some labor and trouble, but all will be well repaid in the quantity that before Christmas will go into the lard tubs and the pork barrels. It is perfect nonsense to raise pork on the old plan if you wish to raise it under 12 or 15 cents per pound. If you follow that old plan, which was turning out shoats at "killing time," and starving them all winter until clover comes, and then say, "root hog or die," until with dogs and niggers you hunt them down and place them in the pen for fattening, after they have worried you all the year as outlaws, breaking in the fields of corn or other grain, at night, and next day run almost to death and torn by dogs, until they escape through their hole in the fence, and a man or more has lost half a day to drive them out and stop the hole, for the same thing to be repeated the next day—you will have pork at a cost far beyond what you can buy it in market. But if you can get a good breed, keep the hogs dry and warm in winter, give good pasture in summer, plenty of water and food all the time, with rotten wood, ashes, salt and sulphur, you can raise pork costing not half what you would receive for it should you choose to sell.—The hog is naturally lazy, and if well fed with food he will not wander far from the swill tub or food trough, like the poor, lazy drunkard, he will stick to the tavern that gives him his meat and drink in the largest quantity for the least exertion on his part. But stop his meat and drink, and no idle vagabond or ruined roue will turn maraudering rover or sneak thief, bold highwayman or chicken stealer quicker than the hog, whether he be high bred or common stock.

Orchards.

If you have not done it before, it is not too late to wash your trees with soft soap and salt and ashes, as often prescribed before. Gather the fruit of all kinds as it falls or ripens. Sell all you do not require for home consumption, and if you cannot sell, be sure and feed it to the hogs. Let none decay on the trees or ground. Forward apples may be made into cider, and if sold as made, it is well, for it will not be cider long, but it will make good vinegar. Yet, if you have hogs, it is best to give them every one not consumed in the family or not sold. Many small green and defective apples, peaches, etc., will now fall from the trees; be ye sure to gather them and feed them raw or cooked to hogs or cows. Cooked fruits are best, particularly when mixed with meal, bran, etc. Destroy as far as possible all caterpillars and other insects attacking either the fruit or the trees.

Potato Bugs.

The old bugs that survive the winter do not eat the potato plants enough to injure them; but they deposit about fifty eggs each that hatch early this month, and when they hatch, all damage to the crop may be prevented by dusting the plants with plaster ground fine and mixed with pure Paris green or London purple at the rate of one pound of either to fifty of plaster; one thorough application at the proper time is usually sufficient'; if it is preferred a teaspoonful of either Paris green or London purple mixed with a bucket of water and sprinkled on will be equally effective.

Ensilage Corn.

Early this month is not too late to plant this crop, now generally admitted to be of great importance to successful farming; whether to plant one half bushel of seed or two or three bushels, will produce the most profitable crop is not fully decided, but whatever quantity of seed is planted a large crop can only be secured by liberal manuring, which should be spread on and harrowed in and a good fertilizer applied in the drill; cultivate well with horse cultivator and Thomas Smoothing Harrow, or some other of like character and no hand hoeing will be needed.

Garden Work for August.

Give the whole garden a thorough cleaning up. Kill all weeds and grass that you may not be troubled so much next year.

Asparagus.—The beds of asparagus should be weeded and worked up and a coating of salt given.

Celery.—Set out plants for late crop. Earth up the early planted when dry and ground pulverized. Water when they seem to want it.

Cauliflower and Cabbage.—Work both often, with some earth thrown at each hoeing toward the plants to raise gradually broad flat hills. In dry weather water copiously.

Endive.—Tie up this salad as soon as it is large enough. It comes in now nicely, as we are tired of lettuce and cucumbers.

Herbs—Medicinal, Culinary and all sorts.—Gather these, dry under shade; when dried, put in paper bags for use. Strip the leaves from the stalks of sage before being dried; it will save the housewife much trouble at sausage making time

Small Salading sow at intervals.

Lettuce you may sow up to the 10th.

Late Cabbage—May yet be planted on a good season, on prime land, well fertilized and after being planted worked thoroughly and often. Then, only then, will you reasonably expect a fine head of this esculent to grace your table or be fit for market, planted at this late season; but if the above conditions be complied with and the season suits, you may rest assured you will have a tender, luscious dish on your table of the brassica order. Be sure to plant some Savoy cabbage.

Spinach.—This vegetable, so delicate in flavor, so wholesome, and one of our favorites, if properly cooked, may now be sown in small quantities on a rich spot, and after being sown, rolled or well tramped. But it is well now, while cleaning the garden up, to select a warm spot that is sheltered; make it very rich and pulverized, so that it will be ready to be sown in spinach the last of the month for winter use. It is so delightful to have jowl and spinach the first of March. They seem to come connubially together, like middling and sprouts do later, or still later ham and lettuce. The humblest of America's sons can, if he is thrifty and chooses to do so, enjoy either or all of these dishes which the gourmand, Lucullus, with all his wealth and epicurean propensities never enjoyed, and could not have had, if he had desired to do so. Then why do we grumble about "*nothing to eat*," when these luxuries are to be had, if we are provident and industrious?

For the Maryland Farmer.

The Demand for Beef.

There is at the present time in the eastern markets of our country, and in fact, over a large extent thereof, an unnatural and unusually active demand for beef which it is very difficult to supply. This condition of things can to some extent be explained and in the explanation the dealers in this product should learn a valuable and useful lesson.

New England has always been noted for its beef producing, and even as far back as revolutionary times, Brother Jonathan, as the elder Geo. Trumbull was familiarly called, furnished large quantities of beef for the Continental army—beef that was made upon Connecticut and New England hillsides. Nor has the time ever been but that good beef could be produced, and satisfied the market demands.

But extended facilities for transportation opened new fields and the western dealers in beef conceived the idea of supplying the eastern market, and eastern dealers or marketmen were more disposed to accommodate those in the west than their neighbors at home. In other words, farmers some years since saw their beef go begging for a market. Endeavor to sell any to the dealers and the reply would be, "no, we get all our beef from Chicago, and we are not handling any domestic beef," as though domestic beef was not as good as Western. With such a condition of things. is it any wonder that farmers should turn their attention to other and surer paying labors.

At all events, such was the case, young calves were either immediately slaughtered

or fattened for veal, and only such as were desired for cows or working oxen were allowed a continued existence, and as a consequence the farms were almost wholly depleted of any beef producing animals, and at the same time time, for reasons, the supply from the West began to fall short, and now the marketmen cry almost in vain for beef, and at extravagantly high prices. This disposition has not all been confined to beef dealers; produce dealers, sometimes, have been disposed to turn a cold shoulder to the local producer, preferring to say, "we get our butter, potatoes, corn, etc. etc., away." This is a suicidal policy for any dealer to refuse to take the home productions. It is better to encourage home interests of all kinds, at all times, rather than do anything that will injure them, for prosperity exerts a mutual interest, and just as the farmer is encouraged and prospers, so every other interest prospers. It is to be hoped that the good State of Maryland does not have any such feeling, but in truth it must be said that in New England the old feeling of selfishness is not yet wholly obliterated.

WILLIAM H. YEOMANS.

Columbia, Conn.

HORTICULTURAL.

For the Maryland Farmer:

A Strawberry Fair.

In the midst of the strawberry season of 1881, it was decided by one of our tradesmen in Vineland, N. J., to offer to the fruit growers of this place the facility which his store afforded for a special exhibit of strawberries. The offer was most cordially accepted by those interested and a very interesting show was made. A little later, the same facilities were used for an exhibit of raspberries that elicited very great interest.

At the meeting of the Vineland Fair Association in the autumn a committee was appointed to provide for like exhibits in 1882. Under their arrangements room was secured on the counter of an adjoining store, for strawberries to be displayed, and their invitation was accepted by 20 exhibitors, displaying 45 plates and baskets of 18 varieties. Another year there will probably be double that number of varieties shown, as parties are experimenting somewhat extensively, comparing varieties on their grounds where similar conditions can be secured. Such exhibits of some one thing have advantages over those embracing a wider range, and enable one to study any particular fruit and its possibilities as they conld not be studied with the attention divided on many things.

The exhibits called attention to size, color, flavor and odor, firmness and softness, shipping qualities, and merits restricted to home consumption.

The Seth Boyden was the sweetest of all, and with fair culture reaches 4½ inches in circumference. Its form facilitates easy cleaning of hulls. In my experience it stands at the head.

The Sharpless was the largest of all. Specimens have been raised measuring 6½ inches, with 16 or 17 to the quart. A hybrid of these two sorts is soon to be brought out so as to combine their size and sweetness.

The Cumberland Triumph was unsurpassed in beauty of form and color, was very fragrant, of large size. It is certainly a desirable variety. The Jucunda was perhaps the most like it in appearance of any on exhibition. But for success, the Jucunda needs high cultivation on a stiff or clayey soil.

The Monarch of the West, with the Great American, did not compare as favorably with some others as I had expected, being little ahead of the Wilson, the old standard market variety.

The Kentucky made a good appearance as did also the Lord's or Vineland Seedling, which is thought to be from a cross of the Kentucky with the Seth Boyden. It keeps very well after getting to market.

The Crescent seedling is one the most prolific of all, a single plant often bearing 100 berries of fair size and resembling the Wilson.

The Glendale and Windsor Chief were quite dark; but the Cinderella and Continental were the darkest color of all.

Charles Downing was far behind many of the later varieties. The Kirkwood or Mt. Vernon and Miner's Prolific both made a good impression.

A seedling was exhibited for a name and several other seedlings may be shown at future fairs. I am now experimenting on about 20 varieties, and so you may hear

from me another year.

Among the methods of preserving specimens exhibited was imitation in wax, and in a strong brine, which does not change the color as much as alcohol, though both reduce the size.

Three days ago one of our farmers had 2,230 quarts packed and shipped in a day on a patch of about three acres. Several picked over 100 quarts and one reached 130 quarts in time for shipment.

W. W. MEECH.

Spinach.

A correspondent of the *Germantown Telegraph* writing about this wholesome "greens," says :—

"It requires a soil naturally fertile, and one that has been thoroughly manured for at least three consecutive years, and should have a heavy coat of manure soaked into the soil before sowing. The seed should be planted thickly in rows, one foot apart; should be hoed and kept clear of weeds till large enough to gather, which is best done by cutting the plant off just below the ground with a knife or hoe, taking care not to cut so high as to cut the plant in two. The root does not sprout the second time. The "Savoy Leaved" is a good kind to plant, having a thick leaf and growing to a good size. The prickly seeded spinach is no longer planted in this vicinity by gardeners, as the round seeded varieties have proved to be equal, if not superior, in all respects. Spinach planted in succession every two weeks will give a crop till the last week in July, when early cabbages and other vegetables takes its place on the table and in the market. The hot weather is unfavorable to its growth, as it has a tendency to run up to seed in the hot months. Later, the seed can be sown for fall and winter, beginning the first of August, the last planting being about September 15. Seed sown after that time will not always make a sufficiently strong and vigorous plant to withstand the winter.

Spinach covered lightly when the first snow comes, with poor hay, cornstalks, straw, leaves, or better still with hemlock boughs, will keep green and be ready to cut at any time when the snow leaves the ground and the thaw has loosened the top soil so a knife can be got under the plant. It is the most popular market greens known and by care and management can be had continuously through the market season, and can be even cut and stowed so that a supply can be had while the snow is upon the ground, as it will keep from four to eight weeks in a cellar where a temperature between 32 and 40 degrees can be maintained."

The Life of the Rose.

There is no plant or bush belonging strictly to the Floricultural family which is perhaps so long-lived as certain varieties of the rose. We have heard of rose-trees —for really trees they were—in England, which had grown to a remarkably large size, such as we never see here, in consequence of the later settlement of the country, some three or 400 years old, which covered about five or six hundred square feet of ground, and that still appeared to be in perfect health and bloomed regularly every year. To show that we have some rose-bushes here of considerable age, we can say that a few days ago, Mr. Henry B. Brunner, of this place, presented us with a cluster of very old roses, one of which was particularly so, having been brought to this country in 1760 by the first of the Levering family who settled in Roxborough, from their old residence on the Prussian side of the Rhine, and was called Roxana, after the wife's name. It is not a variety of much size or especially attractive in appearance, but it is unusually fragrant and a constant bloomer, and on this account is highly desirable. The longevity of a rose is owing to its being able to withstand the extremes of heat and cold. The well-known variety called Hermosa, is one of the hardiest known to our home-list of roses, and though a constant bloomer, it is neither very attractive or fragrant. One of this kind we have had growing in one place that was set out in the spring of 1836, and continues as thriving as ever.—*Germantown Telegraph.*

SIR JAMES PAGET, President British Medical Association, says that 70,000 deaths are annually caused by nervous diseases in England, and that there is no more powerful and effectual nerve tonic than Liebig Co.'s Cocoa Beef Tonic, is evidenced by the emphatic testimony of the most eminent physicians. Beware of imitations under imitative names. For malaria, debility, sick headache, dyspepsia, monthly suffering and biliousness it is incomparable.

Plants Without Earth.

Mr. R. Heath gives the public a sketch of the life of the learned Frenchman, M. Dumesnil, author of L' Art. Italien, and "discoverer of the art of continuing life and nourishment to plants, without their coming in contact with the soil."

Mr. Heath speaking of Dumesnil's fondness for horticulture, says:—

"When a moment came in his life, full of griefs, public and private, and a retreat such as Vascœuil offered itself, it was the most natural thing in the world that he should fly the storms of Paris and of literary life to devote himself to horticulture.

"To his new occupation Alfred Dumesnil brought all those habits of thoughts and investigation which had distinguished his studies, historic and æsthetic. He was ambitious to follow in the path of the men who had sought the secrets of nature.

"To cultivate plants without earth had long been the dream of chemists; after years of patient study the gardiner of Vascœuil has discovered a means of giving continued life and nourishment to plants, without their being brought in contact with the soil. All he does is to wrap their roots up in some moss to which he has imparted this life-giving power. This "fertilizing moss" is not only capable of affording nourishment to all kinds of vegetable life, but will do so indefinitely.

"Since November, 1880, the date at which his researches proved successful, he has constantly been testing his process, and has never found the least interruption in the vegetative functions of the plants subjected to its influence; on the contrary, winter and spring plants have blossomed with a vigor he has never seen in his garden. With the shelter of a glass, hellebores taken up at the end of November and the middle of December have remained two and a half to three months in blossom. Other plants, primroses, daises, violets, auriculas, have not only been in bloom for three months, but have thrown out new buds.

"At Vascœuil we saw plants loaded with blossoms which had been in the fertilizing moss for weeks. The public in Rouen and Paris have during the past year had frequent opportunities of beholding again and again the process in full operation in the exhibitions of flowers and vegetables which M. Dumesnil has given.

"It is manifest that this discovery will indefinitely increase the facilities for the floral decoration of interiors. There is scarcely any kind of vessel in which the plants cannot be arranged. Since M. Dumesnil perfected his discovery, he has had all kinds of ordinary flowers blooming in baskets containing the fertilizing moss. On the occasion of any fete, even Christmas, his tables have been covered with a profusion of spring flowers, and he has been able to decorate his rooms with a freedom impossible with plants growing in earth. Thus, while nature outside lay frozen and dead, the interior of his house has been a blooming parterre.

"The practice of adorning rooms with plants is so agreeable a one, that few persons like to be told that it may prove a source of disease. Such malignant effects are impossible with the fertilizing moss, it cannot turn sour like earth and poison the plants, or contain germs of malaria and poison their owners.

There appear to be no practical difficulties in carrying out the process. The one all-important point is to preserve the roots of the plant from being torn or otherwise mutilated, and from being brought in close proximity with the fertilizing moss. In taking a plant from the earth, M. Dumesnil removes the mould about the roots by placing it in slightly tepid water. Having prepared, in the basket or vase intended for the plant, a bed of fertilizing moss, the quantity being regulated according to the strength of the plant, he places over it a layer of ordinary moss of similar thickness. He then takes the plant and, spreading out the roots, fastens it in the ordinary moss, covering the whole with another layer of the fertilizing moss. A little water is given at first and the moss always kept *slightly* humid. If the change from the earth to the moss is made with intelligence, the plant soon exhibits all the beauty and freedom of life, its satisfaction in its new conditions being shown by the quantity of rootlets it throws out.

"Other gardeners besides M. Dumesnil have tested the process and testify to the same results. M. Cabos, director of the public gardens at Havre, has since the 22d of November last, been cultivating in the fertilizing moss dracæi, alternantheri, cro-

tons and cocoanut trees, all hot-house plants; as well as palm trees, chamœrops and the *Pteris Arguta* had developed numerous new roots in the moss. None of these plants had lost a single leaf, nor had even faded at the time of their transplantation. In a fortnight they had completely taken posession of the moss, and had thrown out new leaves.

"It will be observed that these perfect results have been obtained by practical horticulturists. Amateurs must not expect that this process in any way dispenses with attention to the ordinary laws of vegetable life. Happy results will depend as heretofore on the degree to which the plants are loved and cared for.

"The object in the cultivation of vegetables being increased and regular productiveness, the plan adopted by the gardener of Vascœuil is to place their roots, enveloped as above described, in an ordinary bed of mould. The results are most satisfactory. We saw at Vascœuil as many as thirty fine potatoes, the produce of one mother tuber. Thus the poorest land may be made to teem with rich crops, the soil being of no importance, the earth merely affording room and shelter for the plants. Seedlings and cuttings are raised in the same way. In fact the process seems to have all the characteristics of a great discovery; perfection in principle and indefinite powers of further development.

"The discovery of a nourishment applicable to all forms of vegetable life is the primary fact in the Dumesnil culture. The fertilizing moss agrees with every kind of plant, those that grow wild, as well as exotics, herbaceous or ligneous, ornamental, or for food.

"M. Dumesnil's innovation rests on an idea justified by physiological laws, the extremely abundant development of the rootlets of plants when permitted to spread themselves out in a medium less dense and as rich as the most fertile earth. All the applications of the discovery are derived from this truth proved by experience. This explains the increase in the returns of vegetables grown in the earth and of their powers of vital resistance against frost and inclement weather, when their roots are covered with a bed of fertilizing moss.

"Thus, as this new discoverer has said in summing up the work of Palissy: 'Not only does science manifest herself to those who seek her, but she gives more than the knowledge they seek. Palissy sought white enamel; he found a new art of enameling in color. It is the confirmation of the maxim—"Give, and it shall be given unto you."

The Service Berry.

A correspondent of the *Indiana Farmer* calls attention to the value and importance of one species of fruit, to wit, the service berry. This fruit is one that is almost entirely neglected by our fruit growers, yet, to my mind, it is among the most valuable of all the berry-producing trees we have. First, it is a never-failing berry. Second, it is a native of this climate and locality, and never winter-kills. Third, the berries are not subject to the ravages of insects. Fourth, the trees are dwarfish and can be planted close together, are long-lived, and make a beautiful grove, for in appearance they are very ornamental. Fifth, the fruit is of excellent flavor, requiring but little sugar, and can be used for any purpose that currants or raspberries are used. Why is it that this fruit has not received more attention is a question that is hard for me to solve. They are easily propagated either from seed or cuttings. To propagate from seed the berries should be carefully dried. During the month of February or March they should be planted in boxes, or in some place that is exposed to the sun. The plants are of slow growth, and in my opinion, the best results would be obtained by procuring slips. I would be glad to hear from others on this subject, as I look upon it as one of interest to all lovers of fruit. ripens from June 1 to July 15. This fruit is known by the following names:—Service, wild pear, or June berry. Its botanical name is *mespilus arborea.*

THE *Moniteur des Products Chemiques* advises melon growers to put coffee grounds on their melon beds; they form a very stimulating manure and greatly improve the flavor of the fruit.

JUDGE MEN BY THEIR WORKS.—A man is judged in this life by his works, and in this connection it may not be inopportune to add, that Dr. Swayne has accomplished more good through the medium of his Ointment for skin diseases, than has the entire school of physicians combined. "Its an ill-will that blows nobody good." What the Physicians have lost Dr. Swayne has gained.

POULTRY HOUSE.

For the Maryland Farmer

Shelter for the Chicks.

Poultry require plenty of shade and shelter, to enable them to keep healthy and to be profitable. During the warm, sultry days of summer and early fall, the birds should have plenty of shade. If they have their liberty they will seek the shade whenever necessary, but when confined to a yard which is destitute alike of grass and trees, some provision must be made for their comfort and well being. If trees cannot be planted, and even if they are, until they are old enough to afford sufficient shade, temporary shades must be erected in the yards. These sun shelters can be readily and cheaply made by making a skeleton roof of old boards, strips or poles, and then covering with fodder, sods, cedar boughs, or almost any other handy material which will answer the purpose. These are perhaps not very ornamental, but as they are very useful and answer the purpose, at a trivial outlay, they can be tolerated until cool weather comes, when they can be taken away. Some cover these sun shelters with canvass or with cheap, strong muslin, well painted or white-washed. This is more expensive but as the material will last several seasons, and is readily put on and taken off, it may be, in many cases an advantage to use one or both, as may suit the wishes or pockets of the breeders.

The poultry house and yards may be large enough to comfortably contain all the breeding fowls, yet, in the early fall, at the advent of cool weather, the flocks of young chicks will be seeking for shelter, and unless provision be made elsewhere for their comfort, they will so crowd the poultry house as to make it very unhealthy for all the birds. To prevent building new houses, many of our breeders work off their surplus stock as fast as possible, though, even then, the young birds may not go away fast enough to prevent overcrowding in the poultry house. To avoid this,temporary shelters can be made which will answer all the purposes of comfort and commodiousness, until severely cold weather sets in, by which time but few of the surplus birds should be on hand. A skeleton shed can be made of poles, and then surrounded and topped with fodder or thatched all over with rye straw; or it can be made of any common stuff which may be around the place, the object being merely to keep the damp, cool air and the wet off the birds while at roost.

D. Z. Evans, Jr.

The Plymouth Rocks.

There are various breeds of poultry, which for single and special purposes may exceed the Plymouth Rocks, yet as a general purpose fowl, where profit is desired, there is no better, nor is there likely to be. The farmer and fancier alike are loud in their praise, for they seem to fill the bill exactly. They are from medium to large in size, have plump, well rounded bodies, and fit for table use at almost any age. They are hardy, good layers of large eggs and the eggs are uniformly fertile. They make good, careful mothers, and are as free from liability to disease as any other breed known. One feature which makes them especially desirable for Southern breeders and farmers is, that they feather up so quickly, when very young, and are thus secure against injury from wet and the fierce rays of the sun at this stage of their growth. The Asiatics (the Brahmas and Cochins,) remain so long almost or entirely naked, many of them become "scalded," causing them to droop or die, or else stunt them so badly that they seldom, if ever, get entirely over it, even when they are fully grown and matured.—*Ex.*

The Goose is the easiest and least expensive of all fowls to raise; and when properly fatted meets with a ready sale in market. In order to thrive well, the *Poultry Monthly* says that it must have a grass range with access to a pool or stream. Worn out pasture lands, swampy meadows and the marshy shores of creeks and rivers are all adapted for it. Thus, during seven months of the year it requires but little feed beyond that which it finds in its wanderings. When being fatted for market it should be allowed but a limited range and be abundantly fed for three weeks on corn, vegetables and wheat before killing.

The largest livery owner in Maine uses Kendall's Spavin Cure with the best success.

Breeds for Broilers.

The modern poultry raisers look for size, and broilers should present plump breasts and small bones. These qualities cannot be obtained with the great Brahma or Cochin, but are met with in the Game, Leghorn and Dorking of the English, and the Crevecœurs, Houdan and La Fleche of the French varieties. An important point is to produce an early feathering breed, as then maturity will come in a degree sufficient for the early chick. The bone of the Cochin is too heavy, and the feathering is too tardy for the early chicks, but they do admirably for roasters. The Plymouth Rocks are better adapted for this purpose as they are smaller fowls, the Dominique blood giving them more early qualities. The little French Dominiques, a dark plaid fowl, are admirably fitted for this business, as they are always of plump, short body, and make rapid growths, the feathering and maturity keeping equal pace. They are also good fowls to produce eggs, but are more uncertain than the Leghorn for all seasons, all climates, and under all circumstances. Hamburgs are great egg producers, like the Spanish, but are white skinned which is oftentimes an objection.—*Country Gentleman.*

Our Farmers' Olio.

Bones and Barn-yard Manure—One ton of bone dust contains as much phosphoric acid as 110 tons of stable manure. One ton of the latter, however, contains more potash than five tons of bone-dust.

Dandelion Leaves for Horses.—This is recommended by E. Rust of Eridge Castle, as having a very beneficial effect on the health of horses—the black becoming sleek and shining like a mole and the brown dappled like a deer—besides producing extra condition and energy.

The following test is given by the French Academy for distinguishing false gems from diamonds: If the point of a needle or a small hole in a card appears double, the stone is not a diamond. All colorless gems, with the exception of a diamond, cause a double refraction.

The decay of wood embedded in the earth is difficult to guard against, but according to the *British Farmers' Gazette*, a simple precaution costing neither money nor labor will increase the durability of posts put in the ground by 50 per cent. This is simply by taking care that the wood is inverted, *i. e.*, placed in the opposite direction to that in which the wood grew. Experiments have proved that oak posts put in the ground in the same position in which they grew, top upward, were rotten in 12 years, while their neighbor's, cut from the same tree, and placed top downward in the soil, showed no signs of decay for several years afterward.

It is now stated that the stalks of the cotton plant can be converted into valuable stock food by cutting them into small pieces or grinding them.

Medical Uses for Eggs.—For burns or scalds nothing is more soothing than the white of an egg, which may be poured over the wound. It is softer, as a varnish for a burn, than collodion, and being always at hand can be applied immediately. It is also more cooling than the "sweet oil and cotton," which was formerly supposed to be the surest application to allay the smarting pain. It is contact with the air which gives the extreme discomfort experienced from ordinary accidents of this kind; and anything which excludes the air and prevents inflammation is the thing to be at once applied.

The egg is also considered one of the best remedies for dysentery. Beaten up slightly, with or without sugar, and swallowed at a gulp, it tends by its emollient qualities to lessen the inflammation of the stomach and intestines, and by forming a transient coating on these organs to enable nature to resume her healthful sway over the diseased body. Two, or at most, three eggs per day would be all that is required in ordinary cases; and since the egg is not merely medicine but food as well, the lighter the diet otherwise, and the quieter the patient is kept, the more certain and rapid is the recovery.

Beauty Regained.—The beauty and color of the hair may be safely regained by using Parker's Hair Balsam which is much admired for its perfume, cleanliness and dandruff eradicating properties.

THE DAIRY.

Cleanliness of the Dairy.

The sides and udder of every cow should, before milking, be thoroughly brushed and cleansed of everything that can fall into the milk pail. The farmer should place over the can which is to convey his milk, two cloth strainers, of unequal thickness, the thicker one being below the other. The lower one is best made of thick woolen flannel. A woolen strainer will often take out a good deal of foreign matter that a linen or a cotton one would let through. As often as matter accumulates upon them, they should be turned over and rinsed till they are clean. This would be but a small item for each dairyman to do, and it would make a material difference in the quality of the butter or cheese that is to be made from it. This little attention to cleanliness would, like every other tidy act connected with the dairy, pay well in the long run, because it would make the goods so much more satisfactory and desirable. It would not remove entirely the necessity for straining at the factory, because flies and other objects which it is impossible to avoid are always liable to drop into milk while being handled, that must be got out, but it would keep out so much soluble matter that now goes in, as to make a material improvement in the products of the factories.—*National Live Stock Journal, Chicago.*

A Great Butter Cow.—It is reported that A. B. Darling, of the Fifth Avenue hotel in New York, has lately bought a cow of J. S. Kenerson of Barnet, Vt., for $2,000. Kenerson paid $175 for her, and the man he bought her of $75. Her record for the year ending March 15, 1880, was 746 pounds of butter, and in 6 months of 1881, beginning with June, her record was 460 pounds. The cow has been christened the "Queen of Barnet." She is described as weighing 1,075 pounds, a cow with a large full barrel, good constitution, with the general appearance of a hearty, healthy Jersey. She came of a family of cows imported by the Fairbankses of St. Johnsbury, Vt., and was sold by them when a yearling. When she first came in, her butter proved to be not of as high color as her owner liked, and so she changed hands at low figures till her fame was established, but they color the butter now. She has the best of care, and every attention is given to crowding her up to the highest results. A gentleman who saw her in December last says her feed is four quarts of bran, four quarts of ground oats, three quarts of corn meal, eight quarts of carrots, and all the good hay she can eat daily. Would not there be more famous cows if they had the same treatment? There is a good deal of truth in the adage, that "the breed is in the mouth." We shall never know the capacity of common cows till we give them uncommon advantages. There is a limit to high feeding, but the majority of farmers keep at more than a respectful distance from it.—*Ex.*

A Kentucky cow raised on the farm of Erastus Ellsworth of East Windsor Hill, has a remarkable record. April 16, 1877, she gave birth to twins, one male and one female; March 16, 1878, she gave birth to triplets, two males and one female, making five calves in eleven months and three days; July 9, 1879, she gave birth to twins, both males, October 7, 1880, she gave birth to triplets, two males and one female, making ten calves in three years, five months and twenty-one days. The calves have all been of good size, healthy, and handsome, and have all been raised on the farm.—*Exchange.*

Letting Calves Run with the Cow. — As a strong flush of grass is coming on, it may be as well to advise the young breeder that he should never allow the calf to run with its dam in the pasture, and that for many reasons, but especially two: the first, that a cow is longer, under such conditions, coming in season; and another, that the calf is apt not to drain its dam sufficiently, and so to spoil her as a milker. Some eminent breeders never allow the young one to see its mother, preferring to rear them from the pail. This is not so good for the youngster as sucking. The best compromise, then, is to drive the cow home to feed her calf in the stall, and then, if the milk flow be more than sufficient for one, to have a second indulged with a teat.— *Correspondent of National Live Stock Journal, Chicago.*

The Distinguishing Charm.—A delightful fragrance of freshly gathered flowers and spices is the distinguishing charm of Floreston Cologne.

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor,

COL. W. W. W. BOWIE, Associate Editor,

141 WEST PRATT STREET,

BALTIMORE, MD.

BALTIMORE, AUGUST 1st, 1882.

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THE MARYLAND FARMER is now read by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory

☞We call attention to our Reduction in Price of Subscription.

Now is the Time to Subscribe

—FOR THE—

Maryland Farmer,

Terms $1 Per Year in Advance.

The subscription price is very low, and we think any farmer merchant or mechanic would find it worth to him ten times its cost. As an extra inducement, we will send (free, as a premium,) to each subscriber, one of the following valuable books as he may select, viz:—

Kendall's Horse Book,

Fisher's Grain Tables,

Scribners Lumber and Log Book,

or Report of Ensilage Congress,

Either book is worth to the farmer more than the price of our Journal, and by enclosing $1.00 the **Maryland Farmer** *will be promptly sent you for one year and either of the books you may select, free of postage.*

EZRA WHITMAN.

☞COL. D. S. CURTIS, of Washington, D. C., is authorized to act as Correspondent and Agent to receive subscriptions and advertisements for the MARYLAND FARMER, in the District of Columbia Maryland and Virginia.

☞Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

ACKNOWLEDGMENT. We return thanks to our friend, T. Alex. Seth, Esq., for some specimen prints of butter from the famous cow, "Value 2nd,' lately added at a cost of $2,000, to the before conspicuous Windsor herd of Jerseys, in Baltimore county, Md. Value 2nd has made as much as 24¼ lbs. of butter per week, and 671 lbs. in a year, of just such delicious butter. The butter sent to us was made in Hagerstown, on the 26th, when the thermometer was above 90. We tested a portion of it on the 29th, after it had been subjected to rough usage on the way in cars and by messengers, unprotected from the extreme heat, by ice or other appliances, except a thin cloth and a paper box, yet it was as firm as butter just out of an ice chest, and of a texture admirable, with a delectable taste, with no perceptible taste of salt, which condiment might have improved its flavor, in our opinion, but the absence of which, together with the intense heat of the weather, showed that Value 2nd has no grease in her product. The only fault we could find was there was not *enough of it.* It was refreshing to get such "gilt edge," after paying 40 cents a pound for half butter and half butter milk, as the *best* in the market.

NOTES SUGGESTED BY THE SEASON.—As this year is an exceptional one for abundance of fruit, we earnestly call upon all who have an abundance of fruit to consider the propriety of possessing a fruit dryer and evaporator of some sort. We would name among the many excellent ones, the "Zimmerman," as it is both reasonable in price and is a capital evaporator of both fruits and vegetables. Any fruit grower in the possession of a fruit evaporator is independent of any glut in the market caused by excess of production. The evaporated fruit will be really very nearly as good next winter as it is now in its freshness from the the tree. To those who like a refreshing temperance drink, let us refer them to the advertisement in our June number, of Mr. Coblentz's "Peach Cider." By his process peaches can be made to yield $3.00 net, per bushel, at home. This cider that we have tasted is truly a delightful beverage, especially in warm weather. Let us have more home made non-intoxicating drinks, if we want to make *local option* popular, and at same time make the production of fruits more remunerative.

KANSAS CROPS.—From advance sheets of the Second Quarterly Report of the Kansas State Board of Agriculture, for the quarter ending June 30th, 1882, we learn that Kansas is now harvesting the largest wheat crop in its history. The State average per acre is 20.69—, the best average since 1866, which was placed by the Department of Agriculture at Washington at 21.40. Although the yield per acre was larger at that time than now, the acreage as compared with the present year was insignificant. The State had then but 260,465 acres, and a product of 6,527,358 bushels, while this year the acreage is 1,462,736 and the product 30,273,711 bushels.

Corn.—The acreage has increased six per cent. over 1881, and will reach 4,500,000 acres. The counties reported have an acreage of 3,927,851, an increase of 250,958 acres. An ordinarily favorable season will make a crop of 175,000,000.

Oats—This crop has increased from 280,157 acres in 1881, to 447,695 acres in 1882. The counties yet to report will raise the area to 500,000 acres. Of the three hundred correspondents reporting, not one speaks discouragingly of this crop, while many say that it will be the heaviest crop ever harvested in Kansas.

HOW TO SAVE.—All hard workers are subject to bilious attacks which may end in dangerous illness. Parker's Ginger Tonic will keep the kidneys and liver active, and by preventing the attack, save much sickness, loss of time and expense.—*Detroit Press.*

LIVE STOCK REGISTER.

Shropshire Downs.

The agricultural editor of the *Globe* and *Canada Farmer*, in reply to enquiries, thus speaks his praise of Shropshire sheep.

"We recommend the Shropshires as being large, hardy, prolific sheep, yielding a quality of wool which is always salable at a higher price than long wool. We do not wish, however, to be understood as recommending them beyond Southdowns, Oxford Downs, Hampshires, or any other breed yielding the same quality of wool. It is an open question as yet, what kind of sheep is best for Canada, and we have no doubt that ultimately it will be found that no one breed will suit any great area of country.

The average weight of washed wool yielded by a Shropshire may be put at seven to nine pounds; the average live weight of a one-shear Shropshire at 140 lbs; and a two shear at 180 pounds. Shearling rams have been known to reach 24 a quarter dressed weight, but this is of course unusual.

The Chester White Standard.

The Swine Breeders' Convention agreed upon the following as a description of their characteristics:—"Head short, and broad between the eyes; ears thin, projecting forward and lap at the point; neck short and thick; jowl large, body lengthy and deep, broad on the back; hams full and deep; legs short and well set under for bearing the weight; coating thinnish, white, straight, and if a little wavy not objectionable; small tail and no bristles." Since the foregoing was adopted the tendency has steadily been towards reducing somewhat the coarseness of their bone and shortening their heads and ears; and the improvement has been so marked that fair specimens of the breed are nearly models in form. The large lopped ears, coarse heads, long coarse tails and hair, and coarse, spongy bones are not, as in times past, characteristics of the breed; and the enormous weights to which they were formerly fed, are now not considered the most desirable or profitable.

English Shire Horses.

The English Shire bred draught horses somewhat resemble the Clydesdales. Dealers frequently sell them for Clydesdales because the latter command a higher price in the market. The English Shire horses are powerfully built, strong limbed, heavy boned, compact, close coupled muscular formed animals, weighing from 1,600 to 2,000 lbs. They are well adapted for large drays or lumber wagons, where great weight and power are required to steady and move large loads of merchandise or minerals at a moderate pace. The English Shires have been crossed with the Scotch Clydesdales, and this is claimed to have produced a family superior to either breed. The cross of the Scotch sire with the English mare is claimed to have bred an excellent draught horse, superior to either sire or dam. Both breeds were originally founded upon the union of lines of powerful draught horses, the re-union of lines long separated might be expected to culminate in a superior family. The good qualities that either possessed single-handed, when combined together would give additional force of character to the issue and improve the breed. It is the way that all breeds are founded, and their progeny raised up to a higher standard of excellence.

The Shepherd Dog.

In training a shepherd dog you should begin when it is six months old, or as soon after as possible. If left too old he becomes stubborn and is not near so teachable as when taken younger. The first thing to be done is to take him among and around the sheep, till they become so familiar as to welcome him as a friend, and above all, to never start at his presence or be afraid of him. Then take a single sheep or perhaps two or three in an ample yard or pasture and assist him in driving. After this, take a greater number and if when driving, any one of the flock rushes off by itself, teach him to instantly bring it back. Always speak kindly to the dog, and be particular to pat and encourage him when he does well. Never strike or punish him in any way; if you do it is likely to cow and make him afraid of you. After following up these lessons for awhile, stand a short

distance from the flock and send the dog to drive by himself. In doing this you need not use the shepherd's technical terms, but if you do not know them because being untrained, you can accustom your dog to any word of command you please; and also to the waving of your hand to the right or left or forward as you wish the flock to move. After a time the dog can take the flock out to pasture by himself, and go for them when to be brought back, and this he will do from a mere word of command or the waving of the hand. When taking the flock to distant pastures on the English Downs, there being no fences on these, the shepherd usually goes forward slowly on foot, or mounted on a donkey or pony, the dog trudging alongside, and the sheep following them, which they will do without stopping or swerving to the right or left. But when on a public road this is reversed so that the shepherd and dog can have the flock in full sight before them, to see that nothing obstructs or turns it out of its course.—*A. B. Allen, in N. Y. Tribune.*

Jersey Cattle.

For family cows and butter makers, the Jerseys stand high among intelligent dairymen. They are working their way into the rural districts, and Jersey grades are now quite common in all the older States, and the more numerous in the better dairy regions. The true policy in every butter-making district is to propagate the stock from a registered bull of good butter pedigree. An investment of one to three hundred dollars is not beyond the means of any thrifty farmer, or a farmers' club, in any community. The fifty or more calves that such a bull would sire in a season would soon affect the butter production and the prices, and in many ways stimulate agricultural improvement. Half and quarter Jersey grades often give a rich milk and in larger quantity than the registered animals. If after "gilt edged" butter, or a good family cow, a Jersey is pretty sure to give satisfaction.—*American Agriculturist.*

TERRIBLE LOSS OF LIFE.—Millions of rats, mice, cats, bed-bugs, lose their lives by collision with "Rough on Rats." Sold by druggists, 15c. per box.

Sheep Raising in Tennessee.

Gen. Frank Cheatham gives his experience and makes important suggestions in his special correspondence to the *South.*

"According to several promises, I herewith send the statement of my experience with sheep. In the fall of 1866 I bought 11 ewes and a buck. They were good, common sheep, for which I paid $24. Since that time the family, which is a large one, have had all the requisite mutton and lamb for the table and I have sold in sheep and wool as follows:

1869, sold wool	$ 57 80
1870, sold wool	46 48
1871, sold wool	77 73
1872, sold wool	153 17
1873, sold wool	201 00
1874, sold wool	223 00
1874, 58 mutton sheep	256 00
1875, sold wool	279 35
1875, 31 sheep	157 85
1876, sold wool	267 10
1876, 87 yearling lambs	302 62
1877, 55 lambs	102 00
1877, sold wool	179 73
1878, sold wool	241 00
1878, 55 lambs	102 00
1879, sold wool	218 64
1879, 44 lambs	72 00
1879, lambs' wool	32 65
1879, 100 ewes	300 00
1879, 25 ewes	112 50
1880, 40 ewes	100 00
1880, sold wool	169 50
1880, 32 lambs	65 00
1880, lambs' wool	22 50
1881, sold wool	90 00
Total	$3,829 62

STOCK ON HAND AND TREATMENT.

I now, March 1, 1882, have on hand, in fine condition, 160 head of young healthy ewes, 100 of which will bring lambs during the next six weeks. I have rarely ever fed my sheep during the winter, only when the ground was covered with snow, when I have given them a few bundles of oats."

SALE OF SHORT-HORNS.—Mr. E. B. Emory of Poplar Grove Farm, near Centreville, has sold his bull calf "*Bright-Eyed Lad,*" to Mr. John E. Chance, of Paca's Island, and a bull calf, "*Flora's Prince,*" to Mr. Walter Walsh, of Dearborn, Michigan.

HUNDREDS of clergymen, doctors and others have used Kendall's Spavin Cure with the best success.—Read advertisement.

"SPRINGFIELD AND BROWN'S INHERITANCE."

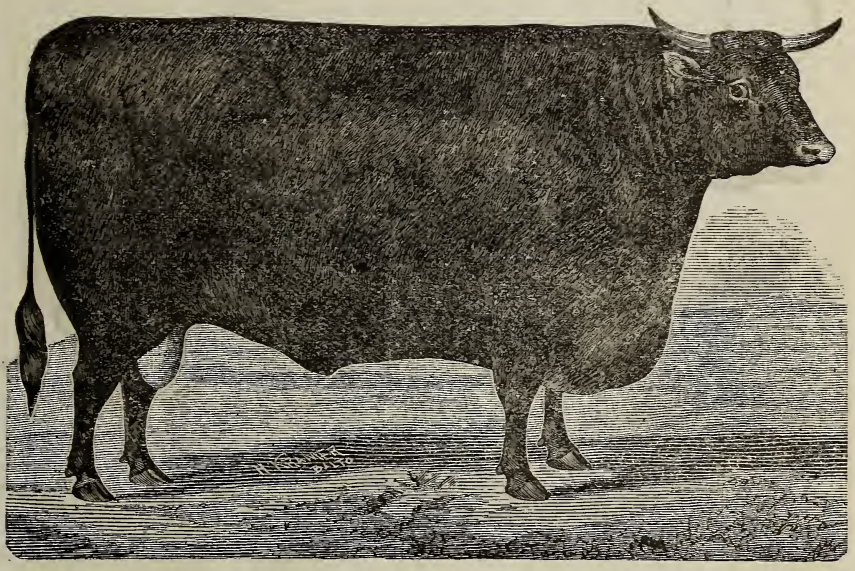
FRANK BROWN, Esq., Proprietor.

WE present our readers with a picture of the homestead of Frank Brown, Esq.' on his splendid estate in Carroll county, Md., and which has been well characterised as a "Model Maryland Farm.

It will be seen that the mansion is of the olden style, capacious and comfortable, evincing the solidity of genuine hospitality, without the glittering appendages of modern architecture that too often give false assurances of welcome to the weary traveller. The surroundings are beautiful and in keeping with the plain but elegant house.

This splendid estate of 2500 acres, in full cultivation, is situated in Carroll county, Maryland, near Sykesville, on the Baltimore and Ohio Railroad, 30 miles from Baltimore, and 20 by the Liberty Turnpike. The "Springfield" portion was originally owned by the late George Patterson, who made it a noted farm of the State. It was purchased by Frank Brown who added his own, "Brown's Inheritance," adjoining, and by extensive improvements and high cultivation has made it one of the finest country estates in the United States. It is divided into fields containing enclosed barracks for storage of crops; his barns, sheep cotes, hog sheds, tenement houses, blacksmith and wagon shops, wind mills, and stabling for three hundred head of stock. Sheds for five hundred sheep and ample protection for all kinds of stock; also a flour and saw mill, dairies, orchards, hot-houses, span-graperies, and a large reservoir of pure water supplying the mansion. The property contains valuable copper and iron mines.

All the products excepting the wheat are consumed on the farm, the manure, stubble and straw being returned to the soil. This farm is celebrated for its DEVON STOCK. The first importation of this valuable stock to this country was made to it. In 1817, (see American Devon Herd Book, Vol. III,) George Patterson made the *first importation* of Devon cattle to the United States to this *Springfield Farm.*



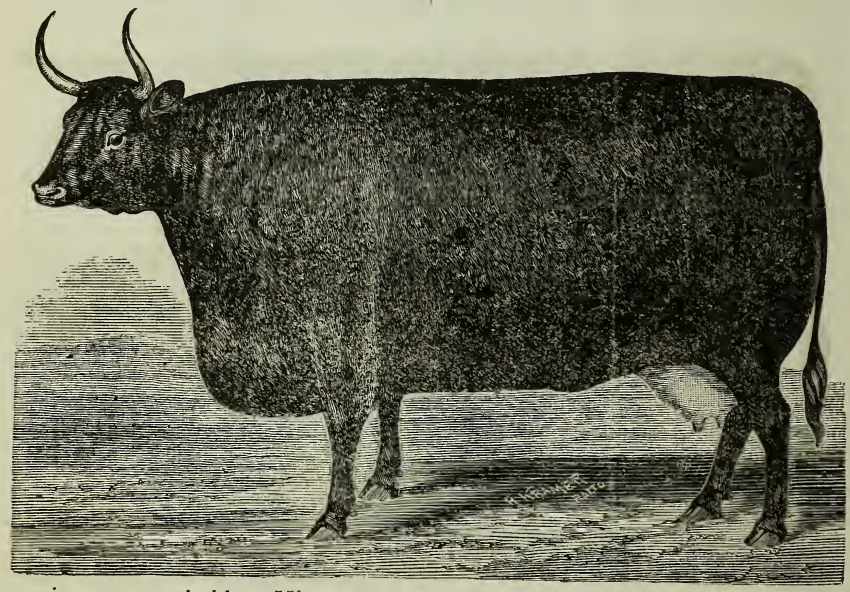
It consisted of six cows and one bull, being a present to him from the Earl of Leicestershire. Since then, Mr. Patterson made the Devonshire stock the specialty of the farm. And his importations in order were, as recorded in the Devon Herd Book—Bull, Anchises, No. 140; Eclipse, 191; Herod, 214; Norfolk, 266; Chatsworth, 482; Dick Taylor, 486; The President, 639 and 904.

From these most of the Devon stock in the United States has descended, so that the country is mainly indebted to "Springfield farm and to Maryland for this valuable stock.

In 1879, Mr. Brown, through his friend, Hon. John Merryman then in Europe, imported a fine bull, "PRINCE LEOPOLD." We give cuts of his present herd bull and of a favorite cow. The pure Devon we think is the prettiest animal in the world. We never tire in looking upon a beautiful Devon heifer.

The owner of this princely estate eats no idle bread. The careful, personal inspection of all the operations carried on systematically, requires all the energy, judgment and diligence for which Mr. Brown is so remarkable. His country-seat, situated about one and a half miles from Sykesville, and called "Brown's Inheritance," but more popularly known as the "Devon Stock Farm," comprises about 400 acres and is chiefly devoted to raising choice stock. On it will be found 100 head of splendid Devon cattle. This herd, improved by importations of foreign blood, is still the famous Patterson Herd, which after the death of Mr. Patterson, became by purchase, the property of the late Col. S. T. C. Brown, the father of the present proprietor, F. Brown, Esq. On this place Mr brown breeds extensively the purest blood Percheron horses, fancy breeds of sheep, hogs, poultry, &c. Besides all this fine stock to be looked after, Mr. Brown has two extensive dairies which, under his management are sources of large revenue. Everything is in apple pie order and evinces the important fact that the eye of the master is the soul of any business occupation. Let all our farmers remember this and practice it as assiduously as Mr. Brown and we shall have less grumbling and fewer declarations that "farming don't pay."

We hope to grace our next number with the portrait of Mr. Brown, accompanied with a short sketch of his life, which so far has been one of usefulness to his State and an example to be patterned after by our young farmers.



Mr. Louis Magruder, of Wilson Station, Prince George's county, Md., is now the owner of a cow which a few days ago gave birth to three calves. All are living and doing well. They are perfectly formed and of good size.

SAYS ONE, "Kendall's Spavin Cure is the best liniment for human flesh I ever used," and thousands have extolled in similar terms.

OUR LETTER BOX.

A New System of Wells for Pure Water.

Editors Md. Farmer.—The great importance of pure water for drinking, culinary and washing purposes, as well as for stock on a farm, cannot be questioned. For many years, a large portion of Maryland, especially along the tide-water regions, has suffered for the want of it, and much of the malarial trouble and typhoid diseases can be traced to the foul condition of the open well, into which frogs find their way, spawn and finally die, impregnating the water with unhealthy organic matter which is well calculated to poison the blood, producing sickness, loss of appetite, &c., followed by typhoid diseases. To secure good water has been a troublesome and expensive job, as the writer can bear ample testimony to. Many of the modern well-sinking machines have proved utter failures, after a waste of time and money. The old system of artesian wells, is a great improvement on the open exposed wells, but the cost has always been too high to come into general use, although exceedingly desirable, as they offer a sure protection from all surface draining.

Recently there has been patented an entirely new and novel manner of excavating earth, sands, gravel, clay, quick-sands, &c., at a rapid rate, by which Artesian wells can be furnished at even cheaper rates than the ordinary wells, and will furnish abundance of pure water, free of all surface drainage. A number of these wells have been put down along the tide-water districts of the Eastern Shore, and have proved a great success. Among the many points where foul water has been the only sort that could be obtained by open wells, Grays' Inn, one of the important stopping places of the Chester River line of steamers can be mentioned. This Spring, one of these wells was put down in a few hours, passing all the surface water, and tapping a lower stratum, pure water was obtained, soft as rain water, and has been furnishing an ample supply for all purposes, at a cost of $27, including pumps, &c., for use.

On the fine farms of Eastern Neck, where they always had bad water, several have been put down, and are supplying pure soft water. The writer had one sunk at Rock Hall, after failing with every other device he tried to get through the quick-sands and tough clays. After passing 130 feet through the tough blue clay, water was reached, highly impregnated with carbonic acid, which rose to the surface, and now flows in the dairy, which, having a temperature of 56 degrees, keeps the milk and cream in good condition.

Last year, it is known that sickness prevailed to an alarming extent on Kent Island. Being a very dry summer, the water got low in the wells, and the organic matter becoming concentrated, it is supposed blood-poison followed from the use of the water, and numerous deaths have been attributed to the bad water. "The Improved Artesian Well Co. of Baltimore," having secured the patent, are prepared to estimate for a supply of water on farms, including wind-mill and other devices for pumps, &c. S.

[We call the particular attention of the reader to the advertisement of the above alluded to Company, in our advertising columns, and feel warranted to say that the company is composed of practical gentlemen, whose responsibility and integrity are beyond question.—Eds. Md. Far.

Carbonate of Lime and Magnesia.

Messrs Editors:—Magnesia and lime being one of the principal ingredients that nature employs in the formation of grain, plants, grass, &c., and carbonic acid requisite to the life and growth of plants, we naturally come to the conclusion that lime is *essential* to the healthy growth and development of plants, grain, potatoes, &c. *Burnt* lime having the carbonic acid driven out by burning—forming quicklime, *absorbs* the carbonic acid from the ground, and is liable to scorch and injure land by overdosing,—it is natural to suppose the most scientific manner to use lime, is in a state of *carbonate*, as prepared from the *natural rock*. In this form we adopt nature's mode of applying it.

It should be prepared from the *pure* magnesian rock, free from impurities or foreign minerals, *finely* ground—and *then* it is a *direct* "plant-food," ready to be

taken up at once by the growing vegetation. The carbonic acid entering into the lungs and the life of the plant, and the *lime* and *magnesia* into the *substance itself*—producing *heavier* grain with thinner skin—*sweeter* and *healthier* grass, and producing a healthy condition of the soil. It is a noted fact that the blue grass soil of Kentucky contains *eight* times as much lime as phosphates—this is proven by frequent analysis.

Lime in the state of carbonate, is useful as a top-dressing, as well as in the hill. There is nothing healthier or more improving to a crop of grass and clover, or to growing corn, or to a crop of ensilage, and to potato plants, at the same time it destroys bugs on potatoes, tobacco worms, &c. For manipulation it is an invaluable ingredient. An excellent mixture in seven parts carbonate of lime to one of ground bone. **

Superb White Wheat.—Black-bearded Centennial.

Mr. Whitman—Dear Sir:—I here enclose to you a few grains of the most remarkable wheat I have ever seen. The original was brought from Australia, and exhibited at the Centennial in 1876. Mr. Easter, Jr., of Baltimore,—of the firm of Hamilton, Easter & Sons,—purchased a small quantity and had it sowed at his country seat, near the City. The yield was so prolific, and the grain so perfect, that he thought it worthy of being introduced to the Farming community through the MARYLAND FARMER and other popular agricultural periodicals. I purchased of Mr. Easter two bushels, and sowed it on medium quality land, in the Fall of 1880. It had the same treatment in every particular as the other varities of wheat, which were seeded immediately by its side.

The Spring of 1881, being very unfavorable for wheat, my entire crop was a short one, and this variety, of course, was influenced by the unfavorable season, but I am very sure, its yield was far greater than either of the other varieties sown, (fully double,) and had it been sown earlier in the Fall, the excess would have been still greater. Last Fall, I sowed it in September, and although it has not been threshed, yet, I am very certain, the yield will be quite three times as much as either the Lancaster Red, the Fultz, or the White Stem bearded. I seeded four varieties of wheat, and this is far ahead of the other three. I am sure, on good land it will yield from fifty to seventy bushels per acre. The head is large, the grain white, very plump, large and heavy. Mr. Easter gave it the name of "*Black-Bearded Centennial.*" I have but a limited quantity for sale, which, if you see proper to accept orders for, will be delivered in Baltimore at $3.00 per bushel, bags included. I paid Mr. Easter $10.00 per bushel for his.

Very respectfully yours,
T. R. CRANE.

P. S.—While writing the above, I sent a colored boy, (six years old,) to the field, to get a handfull of the wheat heads, the sample sent you is from those heads, every one of which I rubbed the wheat out of, and have sent it without culling.

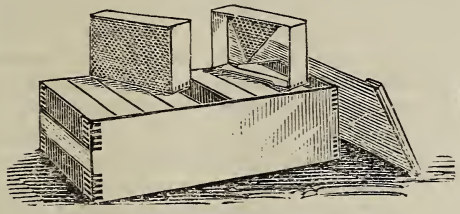
[We agree with Mr. C. that it is the most beautiful wheat we ever saw. He sent us a bunch of heads as plucked at random—and it shows superb. The beards are long and black, giving the wheat field a wonderfully striking appearance. Farmers who may wish to try it, may send their orders to us, as requested above by Mr. Crane.—EDS. MD. FAR.]

Bee Hives.

SUNNYSIDE APIARY.

Messrs. Editors:—Whilst on a visit to your grand city last month, at your suggestion we boarded the car and after a short but pleasant ride to the suburbs, we arrived at the "Sunnyside Apiary," Chas. H. Lake, Esq., manager. By invitation we entered, and was told Mr. L. was upon the lot with his bees, where we went and found him amongst about 300 hives. We felt a little shy at first to venture so close to their little cottages, but after being told there was no danger, we entered and found him dividing queens and planting them into such hives as contained no queen. After they are born he goes over each hive to find out whether the queen has been killed in some way, if she has been, (so much time lost,) and he has to plant another one. The beauty of it is, he handles

them without net for the face, or gloves: we standing, watching him all the time. Some hives he would come to were of a savage kind, so to quiet them he gave them a little smoke with an instrument called, I believe, the "Bingham Smoker," After he was through with his "pets" as he called them, he took us to his factory where are made hives, sections, foundations, &c. What attracted our eye was, his new "Perfection Honey Box," all of the parts are



NEW PERFECTION HONEY BOX.

dove-tailed and no nails are used in its construction, and it is easily put together. Honey stored in these boxes, I should think would very readily bring five cents a pound in advance of the same honey in any other form. They are making extensive improvements in the factory, and had just finished putting up a powerful engine. From the engine room we went into his office, a very neat and cosy little department, where he showed us an old case imported by Mr. Colvin, containing the first Italian bees ever brought to this country, he also showed us an old hive sent to Mr. Colvin, when a mere boy, by King Otto, of Greece. Mr. C. improved upon it and it is now said to be the true origin of the Langstroth hive. The visit was both pleasant and instructive, and a like one will well repay any farmer or bee-keeper who may visit your city of Baltimore. We left without having a single "sting" presented to us by these educated and kindly disposed bees, as a souvenir of our visit to their colony in his breeding yard; we hope to have the pleasure soon of visiting his "*Honey Farm*," a short distance out of the city. Yours, &c., W. F.

"Pro Bono Publico."—It is a remarkable fact that while thousands of people refuse to read paid puffs of worthless nostrums, none skip over Dr. Swayne's little squib about his Ointment for Itching Piles that itch so much at night. The people well know that it is published for their benefit, in other words it is *pro bono publico.* May its far reaching effects be perpetuated to the end of time.

Plant Lice.

Cranberry, W. Va., June 28, 1882.

Eds. Md. Farmer:—I send you a blade of oats infested with a kind of louse. They are destroying the entire oat crop in this section of Virginia and also in Western Maryland. If you can let me know what is the plan to pursue to get rid of them, would feel much obliged. W. L. W.

[We received about that time a box from W. H. S. of Nelson county, Va., containing blades of wheat and oats with many specimens of this aphis, a small green bug, which seems to change color as it grows, until it becomes a minute black fly. We know of no remedy but give what we find in our exchanges, as coming from that eminent entomologist, Prof. C. V. Riley. He writes that the bugs are the

"Green aphis or plant lice which this season are particularly injurious to grain in the South-eastern States. The unusually wet and cool weather of the past spring greatly favored the development of the aphis, while in dry seasons it does not appear in destructive numbers. With the hardening of the grain and the increase of the heat, it disappears for the rest of the season."—Eds. Md. Far.]

Patents lately issued to Baltimoreans.—We ask the attention of our readers to the advertisements in this number, of Mr. Geddess and Mr. Feast. Mr. Geddess has patented a very simple, useful and inexpensive hand implement by which Paris Green or Royal purple can be distributed over potato plants with rapidity, safety and convenience. Mr. G. has given it both last year and this year, the most stringent tests and found it met his most sanguine expectations.

Mr. Feast has a patent for the "Scuffle Cultivator," of which we spoke so highly in our farm work for June, and we are glad to hear from him that many of the most eminent horticulturists and seed growers in the country have expressed their eulogistic approval of it.

LADIES' DEPARTMENT.

Chats with the Ladies for August.

BY PATUXENT PLANTER.

AUGUST.

"The poets sing
Of gladsome spring
In merry, joyous lays,
But scarce a word
Is ever heard
In sultry August praise.

"But yet we know
We cannot throw
One link from year's chain—
Nor cast afar
A single star
Which follows in its train.

"What if no showers
Bring buds and flowers,
As in the Spring-time fair;
The vintage sure
Thou dost secure—
The autumn fruits prepare.

"The husks unfold
Such wealth of gold,
The peach such tints of red;
Whilst on the vine
Rich clusters shine,
With purple tints o'erspread.

"And thou canst boast
One flower at most
Which Spring-time never brings;
Where streamlets flow,
And alders grow,
The wild clematis clings.

"Its tangled bloom
Gives sweet perfume;
Its fresh leaves lightly shade,
The virgin flower
Within its bower
Of leafy curtains made.

"The sunbeams free,
In dancing glee,
Through open places shine;
Whilst drooping low,
Toss'd to and fro
On light-wing'd air,
The blossoms fair
Peep through the twist of vine.

"When Fall days come,
And Summer's bloom
Lies dead upon the ground,
Like clouds of mist
By moon-beams kissed,
This August bloom is found."

It is more refreshing to the wearied mind, after a warm day of sickening thoughts and unrelenting labor of mind in the business engagements of life, to saunter through a well-kept garden of flowers, (however small the space,) so that the flowers are choice and rare, than is a shower of cooling rain to the exhausted body in the dog-days—when the thermometer marks 95. It strikes different natures differently, but no less sensibly—Oh! wives, if you wish to make home happy, joyous as in "the honey-moon days," be diligent, and when the sun is so young in the day, as not to leave a mark on your thin skin, be up and catch the secret,—"*the early bird*"—of a young girl's bloom, by the exhalation of morning dew from flowers mingled and purified with the rejuvenating rays of the early sun. Be up before the sun, and tend your flowers, that the lord of your hearts may be refreshed after his day's labor, by surveying in the cooling shadows of twilight, the beauteous results of your industry, and catching by snatches, consciousness of the real cause of your cheerfulness, and your girlhood bloom. Soon he will leave the club, or the country tavern-like store, to refresh himself with the beauties of nature, and the far better refinements and elevated sources of pleasure in the quiet and serene beauty of home, exalted by the industry of an educated and loving wife. Here will be your triumph. Ladies, much depends upon you to secure connubial happiness—serenity of temper, cheerfulness and hopefulness expressed in your countenance and manner, strict adherence to neatness, attention to those little appliances that lend enchantment to the youthful betrothed girl, (too often neglected after marriage,) and a never ceasing attention to the pleasing adornments in and out of the house calculated to make home a sweet and delightful resting place, for the world wearied man, in whose happiness your own is so indissolubly bound up. Make home attractive with flowers and woman's smiles, and the most wayward, hard-worked husband will be forced to turn to his Eden for comfort, repose and pure happiness.

These thoughts were forced upon me, when lately after a hard day's work I retired to a snug country box one evening, to seek quiet and seclusion. I met at the gate of my friend's house his pleasant wife with sun-bonnet on, at work amid her flower beds, and in her pleasant explanations about her beautiful treasures of some rare and some old flowers—some of which she called her "pets," with a history of each one, we soon forgot our weariness, and was so refreshed by the chat, the beauty of the picture and the soft, sweet soothings of the scene, that we felt all the gush of our early boyhood days, and became younger and happier, as each minute was scattering and diminishing the hot rays of old Sol. We thought, how happy should be the man who owns a pretty wife, fond of her flower garden.

Perhaps some of you would like for amusement, to know how to color flowers, hence, I give you an article I find in Bowditch's American Florist, written by L. V. R. Stevens, of Rhode Island, upon

COLORING FLOWERS.

"Perhaps some of your many readers would like to know how to artificially color roses. Take some freshly blown roses, (white, some that have just been cut off. The stem should be cut with a sharp knife slanting, without jamming the stem; put the stem in a cup of green, red, or blue ink. Let them stand until the roses have entirely changed color, it will take from one to three minutes to change the color of the rose to a beautiful blue, green or red; all the leaves of the rose will be handsomely colored, and the coloring will not rub off, but it will seem as if nature had done the work. After it is fully colored, wipe off the stem dry, and paste some gum or wax over the end of the stem, and it will retain its color; or take some wet cotton and wind it round the stem, and then wind some tin foil round, and tie it snug at the top of the foil, and it will keep fresh and hold its color, and can be worn in the hair or as a button-hole bouquet."

Publications Received.

FROM LOCKWOOD BROOKS & Co., Boston, we have received a handsomely printed and finely illustrated volume of six hundred pages, entitled "*The Farm Yard Club of Jotham*," written by Dr. Geo. B. Loring, U. S. Commissioner of Agriculture. Price $2. From the slight glance we have had the time to give this book, we can only say that it contains much valuable information conveyed to the reader in clear terms, impressive language, and in a most entertaining form that will challenge the attention of the general reader. This is a bare acknowledgment of the reception of the book. We shall take another occasion to speak of its merits when we have had the opportunity to give it the careful perusal its prepossessing appearance seems to merit.

OUR thanks are due to Professor Atwater, for a copy of his interesting and important "Report of Field Experiments with Fertilizers," to the Conn. Board of Agriculture.

TRANSACTIONS of the Massachusetts Horticultural Society, for the year 1881, Part II. This is a volume of highly useful information to the horticulturist, and like its predecessors commands the respectful consideration of every lover of fruit and flower.

THE Department of Agriculture has just issued a pamphlet of 200 pages, giving the "Proceedings of a Convention of Agriculturists" held in Washington last January. To the thoughtful reader, whatever be his occupation, its contents will prove alike instructive and interesting.

Journalistic.

ONE of the best of our State exchanges is the *Maryland Independent*, of Port Tobacco, Charles county, which, with its late issue, enters upon its eighth volume. We extend our congratulations and hope its future may be bright and prosperous.

THE BALTIMORE JOURNAL OF COMMRCE AND MANUFACTURERS' RECORD closed the thirty-second year of its existence with its issue of May 27. The *Journal* is beyond question the leading paper of its class in the South, and is in every way worthy of the liberal support it receives from the merchants of our enterprising City of Baltimore and the South generally. We rejoice at the continued prosperity of this useful Journal.

THE CALIFORNIA APICULTURIST;—Is a new paper, published at Oakland, Cal., and is full, every month of information upon the subject of bee-keeping, &c., that should be at the command of every apiarian in the country. Monthly, at only $1.00 per year.

AMERICAN SILK AND FRUIT CULTURIST, is the title of a neat monthly, published in Philadelphia, and is devoted to fruits and silk culture. This new industry—silk culture—is assuming very properly large proportions, and must open up a new field for renumerative employment for thousands of women and children, all of whom may engage in this domestic industry we recommend this excellent journal. Price $1 per year.

Stock Breeding in the South.

A few years ago such a thing as thoroughbred cattle in the cotton States was almost unheard of. Recently, however, there has been a decided change in that direction, inspired by individual enterprise as well as the establishment of State agricultural colleges, where stock-breeding is very properly receiving considerable attention. A case in point is the agricultural and Mechanical College of Mississippi, at Starkville, where 3,000 persons assembled a few days ago to witness the sale of thorobred and graded cattle. Over one hundred were disposed of at prices ranging from $50 up $250; and there were bidders from nearly every county in the State. Cattle-raising in Mississippi has received a great impetus, and promises ere long to share the honors with King Cotton.

Immense Growth of the Baltimore Fertilizer Trade.

"*Statistics of Agriculture with Special Reference to the Fertilizer Trade of Baltimore,*" is the title of a well-written and carefully prepared pamphlet, just received from the author, Mr. A. De Ghequier, Secretary of the Chemical and Fertilizer Exchange of Baltimore City. From this judicious compilation of statistics, we learn that the total consumption of these fertilizers in the seasons of 1881 and 1882, was for the Southern States, 460,000 tons; Delaware, Eastern Shore of Maryland and Virginia, 25,000 tons; Pennsylvania, 50,000; New York and New Jersey, 40,000; New England States, 40,000, and Western States, 20,000; total, 635,000. The tabulated statements which appear in the report indicate clearly, as Mr. De Ghequier says, what a prominent position Baltimore occupies in the fertilizer trade. It may, however surprise many to learn that the actual contribution of Baltimore's twenty-seven factories has been not less than 317,191 tons, or 50 per cent. of the total amount. Charleston, which ranks next in importance and number of factories, turned out nearly 100,000 tons, leaving for the Northern establishments, as well as for those in Wilmington, N. C., Augusta, Ga., and Richmond, Va., an aggregate production of nearly 250,000 tons. At an average selling price of $35 per ton, the value of the production of the fertilizer industry the past year exceeds $22,000,000. The 3,596 manufacturing establishments are operated on a capital of $35,760,108, and pay annually in wages, $14,467,852. Mr. De Ghequier also gives an interesting account of the creation of the fertilizer trade and its growth in Europe and the United States. He also speaks of the decrease of the fertility of the soil in this country, and the dependence of the agricultural prosperity of the future on the fertilizer trade. Altogether, the work is one of ability and careful thought, evincing the author's masterful comprehension of the subject on which he writes. It sets forth in glaring terms, the already large proportions of the Baltimore fertilizer manufactures, and convincingly proves that an immense trade in commercial fertilizers must soon become a great factor in the growing prosperity of this remarkable City.

The Practical and the Scientific in Agriculture.

BY HON. GEO. B. LORING.

The earnestness and zeal with which agricultural investigations are conducted in our day, indicate not only great intellectual activity in the agricultural community, but they indicate also a deep desire to ascertain the best fountains of agricultural knowledge. The work of the college is becoming more and more acceptable, but the work of agricultural associations is becoming more and more useful. The experimental science of farming, that science which, without exercising undue curiosity with regard to the laws of nature, observes and collects all the facts which may guide us in such an observance of these laws as will secure our prosperity and success in farming. And this is the science we most need; "a science founded upon the accumulation of facts and the accumulation of experiments." For, as the Duke of Argyle recently said, "we can never have agricultural science unless we know the facts with which we have to deal. So long as we want a system of agricultural statistics, we are deficient in one of the very bases upon which an agricultural science can be founded."

Of the value of this kind of science to the farmer the most enterprising agriculturists have long been aware. The foundation of all knowledge of agriculture is the accumulation of fixed facts, suggested perhaps by accident, discovered perhaps by science; but, however obtained, proved or confirmed by the practical farmer on the land. A theory which bears this test may become a law at once for the farming community, and until it has borne such a test it is theory still, no matter what its

origin may have been, whether college or farm yard. While, therefore, an agricultural school may be devoted to science as a guide to agriculture, and may be engaged in cultivating a single farm according to the best known principles, it must depend upon a widespread community of farmers for the last grand process of proving and diffusing its theories. And when we remember that agriculture is not an exact science, and cannot be until the skies and the seasons are subdued by man, and that the facts discovered in the field by the diligent cultivator are often of more practical value than those laid down by the student in his closet, we shall not be surprised at the success which associated farmers have met with in the work of advancing agricultural education. In fact the most substantial and useful literature of agriculture goes to prove this.

The books to which the farmer turns most eagerly for knowledge, are those which contain the facts which now constitute the treasury of his library. Arthur Young, traversing all England for the materials out of which to write his admirable volumes; Jethro Tull toiling with his own hands to extract from the soil itself, the doctrines of horse-hoeing and drill husbandry, with which to enrich his native island; Mr. Cully, devoted to the improvement of cattle as the best college in which to learn how to discuss their breeding and feeding. Fitzherbert, who, although justice of common pleas, was as he tells us "an experienced farmer of more than forty years," and wrote the "Books of Husbandrie;" and so the admirable writers of modern days all write from the great standpoint of experience. What richer fountains of agricultural knowledge can be found than the transactions of our agricultural societies? When can a better lesson be read than is contained in those modest volumes issued annually, and containing the recorded experience of successful farmers? We turn to this fountain of knowledge with confidence and we turn from it with new light and courage for the pursuit of farming. What a treatise on sheep-husbandry might be written by sitting at the firesides or roaming over the pastures of our great wool-growing States, and taking notes of the experiences and labors of the farmers there? What fund of information upon the cultivation of crops, the management of orchards, the use of manures, the conduct of the dairy, lie concealed in the farm-houses everywhere? It is a combination of this practice and economic science which should be the desire and motto of every farmer and every farmer's association, and is the foundation of the farmer's best knowledge.

Let the example thus set be followed always and everywhere. Let our scientific teachers learn to respect the practical knowledge of the farmer, and let the farmer lay aside his jealousy of the learning of the schools. To this just and proper combination of mental forces, how would the earth unfold her secrets; how would the fields rejoice under well-directed cultivation; how would the whole animal economy of the farm be developed and improved; how would the whole business of agriculture be brought into subjection to systematic laws. Without this combination, deprived of this accumulation of facts, science in agriculture becomes powerless; with it, it becomes a most important ally to the farmer—in fact, it is reduced to one mode of practice itself, and meets with the highest success. For, in whatever the farmer does, he is obliged to recognize an influence which the hand of man cannot reach, which no investigation can fathom, no human power guide. Agriculture obeys the laws of nature; science endeavors to ascertain and explain them. Science may attend upon agriculture as a guide and stimulus to the best exertion; but it is the patient and prudent and experienced farmer who knows what land he needs, what crops he can raise, what fertilizers he requires, and what labor he can best apply. It is the union of practice and science which makes farming perfect.—*Nat. Farmer of Washington, D. C.*

At the regular June meeting of the District of Columbia Horticultural Society, held on the 28th of the month, Robert S Kittle, Esq., of Nebraska, delivered a very instructive lecture on the creation and geological structure of our earth. He showed with maps and diagrams, the various stages and formations of the mountains and seas of the earth, and also the advance of vegetable and animal life. The lecture was listened to with close attention and a vote of thanks passed by the pleased audience.

Col. D. S. Curtiss followed with some remarks on the relation and influence of flowers and flower culture, with geology, and upon society.

Potatoes.—Early in the year, in an article on this vegetable, we alluded to the importation of immense quantities of Potatoes into this country, and pointed out the gross negligence of our people in not growing a sufficient quantity of this necessary and easily grown product. To produce this crop in renumerative quantity, needs only manure and little work. The destructive enemy to the potatoe can readily be destroyed by a small outlay of expense and time in applying the remedy. We then suggested that farmers should always plant a large area in potatoes. We are glad to see that many followed our suggestion at the time, and have reaped such large rewards for their sensible adoption of it.

This esculent raised with so little trouble and expense, has brought high prices all the year, and to-day (July 15th,) commands by the car-load from $4.50 to $5.00 per barrel, and in the market 40 cents per peck, for not by any means superior specimens, rather less size than medium. Surely, farmers cannot grumble at such a price. We well remember when potatoes were thought to be worth growing at 15 cents per bushel, on the farm. They must always be worth growing, if sold at low price for starch or for fattening stock. Under even unfavorable circumstances, this crop seldom fails to make 100 bushels of little and big potatoes to the acre, and this is 6000 lbs., or three tons of cattle or hog-food, second only to Indian corn, as a fat and muscle-forming diet. Under like condition, the same acre would not produce more than 30 bushel of corn, with twice the labor, which would not be a ton in weight of grain-food for stock. Thus we see that if this crop be grown in after years to such an extent as hardly to pay for its transportation to market, it will well repay by being fed at home and converted into salable meat. In the South, where two crops a year can be grown on the same ground, it certainly becomes one of the surest and most paying crops that the Southern planter can propagate.

Contents of August Number.

AGRICULTURAL DEPARTMENT.

Sketch of Dr. G. B. Loring....237
Success in Farming—Fullerton....239
Ensilage....240
A New Method of Growing Corn....241
Is it an Example—Gould....242
Lives of Animals....242
How the South is Fed....243
Plant Food in an Acre of Clover....243
The Number of Farms in Maryland, &c....243
Editorial Notes, 243 255 157 260 263 266 267
Farm Work for August....244
Garden Work for August....246
The Demand for Beef—Yeomans....246
Notice of Mr. F. Brown's Homestead....258
The Practical and Scientific Agriculture....266

HORTICULTURAL.

A Strawberry Festival—Meech....247
Spinach....248
The Life of the Rose....248
Plants Without Earth....249
The Service Berry....250

POULTRY HOUSE.

Shelter for Chicks—Evans, Jr....251
Plymouth Rocks....251
The Goose....251
Breeds for Broilers....252
OUR FARMER'S OLIO....252

ILLUSTRATIONS.

Likeness of Dr. Loring, U. S. Com. Ag'l....237
Country Seat of Frank Brown, Esq....258
Devon Bull....259
Devon Cow....260
New Perfection Honey Box....263

DAIRY.

Cleanliness of the Dairy....253
A Great Butter Cow....253
A Kentucky Cow....253
Letting Calves Run with the Cow....253

LIVE STOCK REGISTER.

Shropshire Downs....256
The Chester White Standard....256
English Shire Horses....256
The Shepherd Dog....256
Jersey Cattle....257
Sheep-Raising in Tennessee....257
Stock-Breeding in the South....265
OUR LETTER BOX....261

LADIES DEPARTMENT.

Chats with the Ladies for August....264
Coloring Flowers....265
PUBLICATIONS RECEIVED....265
JOURNALISTIC....265